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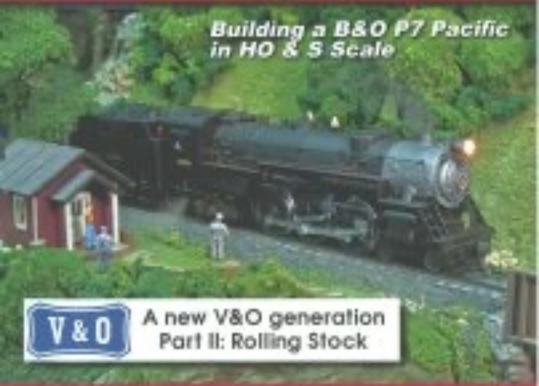

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Springtime is storm time in Chattanooga — and everywhere else

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President's Car

NMRA President Mike Brestel

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Railroad Model Craftsman

One Prototype, Two Modelers, Two Scales

Article and photographs by Brooks Stover, MMR and Phil Brown, MMR

Introduction

Phil Brown and I have a unique relationship. We are both interested in the Buffalo Creek & Gauley, a West Virginia coal hauling shortline. BC&G had only one interchange, and that was with Baltimore & Ohio, so we both have an interest in America's first railroad too. We got to know each other as a result of a website I maintain related to the BC&G (www.buffalocreekandgauley.com). At the time Phil contacted me, we were both working through the NMRA's Achievement Program pursuit of our MMR certificates. Phil models in HO and I model in S, but we encouraged each other throughout the process. In late 2009, we each respectively earned MMR certificates Nos. 427 and 428. We have only met in person ten times when Phil drove from his home to the St. Louis area for an OpSIG session [illegible] where I live. We continue to correspond regularly via email, sharing information, modeling ideas, and prototype information. It is a wonderful friendship born of a mutual interest in modeling.

Recently, I started a project to superdetail a Pacific locomotive to [illegible] operating sessions on my S scale BC&G. Phil's a master of building locomotives, having won numerous awards for his models including Best of Show at the June 2010 NMRA Mid-Central Regional and 1st Place Steam/Mixed Steam Locomotive at the July 2012 NMRA National for his beautiful scratchbuilt Cincinnatian (see NMRA Magazine May 2013). Quite by chance he started a similar project in HO at just about the same time. What follows are accounts of how each of us went about upgrading the appearance and performance of a Pacific locomotive in our respective scales. Specifically, we both modeled a B&O Pacific Class P1-d locomotive. I picked this engine to represent because it was the class of engine that pulled the passenger trains in the era covered the BC&G. Phil picked the P1-d because even though he has built two other classes of B&O Pacifics, he did not have the right class Pacific (P1-d) for the runs to Charleston, West Virginia.

B&O Class P1-d Pacific

While the B&O's P7 Pacifics, the so-called "Presidents" types, are perhaps their most famous 4-6-2s, it was actually the P1-d's that were the most powerful Pacifics on the B&O roster. The P1-ds were also more plentiful, as there were 30 as compared to 20 P7s. The P1-ds were developed starting in 1928 [illegible] engines to pull [illegible] Capital Limited. Interestingly, construction of the P7s had begun some earlier but rather than build additional P7s, management decided to redesign and rebuild existing P1-a class engines into what became the P1-d. Some of the P1-a's had actually been rebuilt from Mikado freight engines. As a result of P1-ds being rebuilt [illegible] conversions, photographs indicate there was a wide variation in their appearance. Running board configurations and pipe routing differ dramatically throughout the class.

The P1-ds retained the P1-a's 74-inch drivers. To achieve the needed power increase, cylinder diameter was increased one half inch to 26½ inches and boiler pressure was increased from 220 to 230 pounds. Many other parts of the locomotives were rebuilt to handle the increased power. In the end, the P1-ds weighed in at 330,000 pounds and had 51,000 pounds of tractive effort, 1,000 pounds more than the P7 "Presidents." All P1-ds had Walschaerts valve gear, were equipped with power reverse, and some were fitted with trailer truck boosters. Most had 21 ton 11,000 gallon capacity tenders.

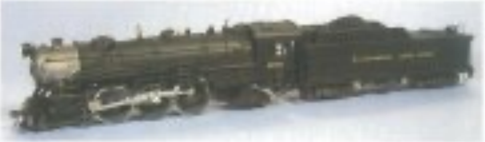
Between 1928 and 1930, a total of 30 P1-ds were put in service. They became the "workhorse of B&O passenger service" serving [illegible] the line. The P1-ds were often used in freight service during WWII and 26 were still in service in 1953. The last locomotive in this class was scrapped in 1957. The engines were renumbered in the late 1950s, with numbers assigned between 5002 and 5056. The P1-ds retained the numbers of the engines from which they were converted.

Interpreting B&O's P1-d Pacific in S Scale

By Brooks Stover
Photos by the author

There is more quality motive power and rolling stock available in S right now than at any time in its history. American Models, S Helper Service and River Raisin are among the companies that have made available many engines of many sizes and even a wide selection of diesels.

For quite some time, I've had one of American Models excellent running Pacifics sitting on the shelf under my layout. I purchased it many years ago but have never put it in service because it didn't really fit into the operating scheme of my Buffalo Creek



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Detailing the Engine

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Detailing the Fireman's Side

[illegible]

[illegible]

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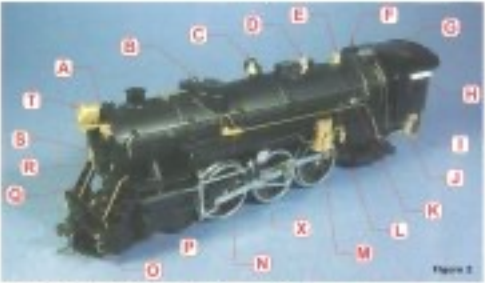


Figure 3

The [illegible] (T) is connected above the injector on the fireman's side.

A cab visor made of styrene (H) and a cab handrail of 0.012 wire (L) were installed. A small "tab" (Z) was added below the boiler to make it appear the valve gear was attached to something.

Detailing the Engineer's Side

The injector (J) and check valve (N) installation is the same on this side (Figure 4) as the fireman's side. Photos suggest one additional line running down from the top of the boiler then running back under the cab. I simulated that with 0.010 wire. This side also got the cab visor (H), cab handrail (L), and valve gear tab (X).

The other major component here is the power reverse (V). It does not make sense to grind off the power reverse on the engineer's side but simply added a little detail in this area. The [illegible] power reverse is [illegible] and [illegible]. [illegible] the [illegible]. The power reverse control rod (W) is made from 0.020 wire.

Detailing the Boiler Top

Sand dome handles (B) were fabricated from scrap brass parts. Lift-end handles (C) made from 0.010 brass were installed over the sand dome. Details from [illegible] include the pop-off valve assemblies (E), generator (F), and whistle (D).

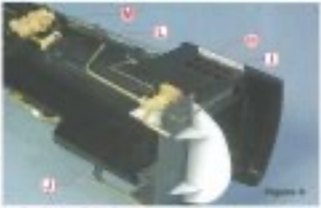


Figure 4

Detailing the Boiler Front

The biggest change to the front of the boiler (Figure 5) was to move the headlight (T) to the top of the boiler front. Ultimately, a number plate made on the computer was mounted under the light on the front of the headlight mounting bracket. The B&O [illegible] (S) shown in the photos is an [illegible]. [illegible] should [illegible]. [illegible] (Q) [illegible] for the [illegible].

A boiler front handrail (R) was made from 0.010 wire and three spikes of the same type used as the handrails running along the boiler. The two boiler support braces (Q) were made from 3/64 inch wire and the cut lever (O) from 0.020 wire. I fabricated a prototypically correct [illegible] equipment bar (P) from styrene and [illegible] and installed a Kadee 802 coupler.

Detailing the Tender

Additions to the tender were rather minor. As shown in Figure 6, these are

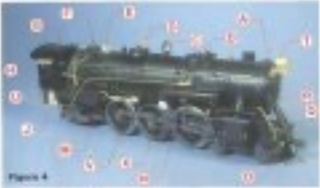


Figure 4

[illegible] vertical handrails (I) and a horizontal grabiron installed on the tender by AM. I added a strip of Plastruct "C" channel (J) to the bottom edge of the tender body to simulate the frame and add more rivets, and I closed off the openings in the back of the coal bunker with styrene (P). I added a railing made of [illegible] wire near the water hatch (K) and used the AM headlight as a tender-mounted light (L). [illegible] replaced the plastic AM units. I added a railing for the ladder (T) made from [illegible] wire and a [illegible] of [illegible] wire. I also added a [illegible] and mounted [illegible] under the tender.

Installing DCC and Sound

As it comes, the AM Pacific runs quite smoothly due to its large motor, machinery train, and large flywheel. However, I did replace the stock motor with a [illegible] can motor to ensure there was absolutely no unnecessary motor noise. This was just a matter of personal preference. I also replaced the stock [illegible] with one of [illegible] slow-speed [illegible] for [illegible] operation [illegible]. I removed all the wiring from the tender except the leads from the trucks. I also removed the whistle [illegible] because I would be installing a SoundTraxx Tsunami DCC sound decoder. There are already provisions for a [illegible] speaker in the front of the tender, and I installed a [illegible] speaker in this space.

I [illegible] on the right side of the [illegible] (Figure 7). As it [illegible], the diameter of the tender wheels are approximately half the diameter of the drivers [illegible]

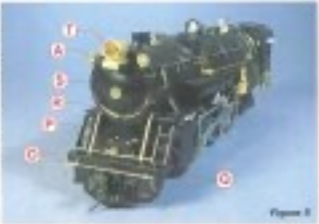


Figure 5

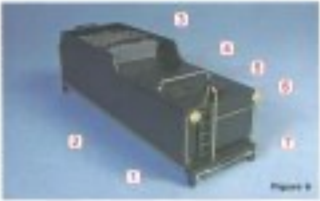


Figure 6

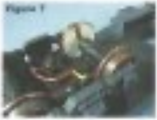


Figure 7

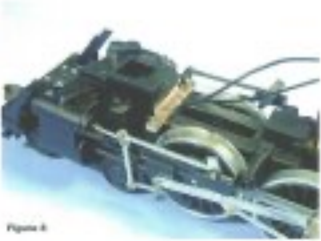
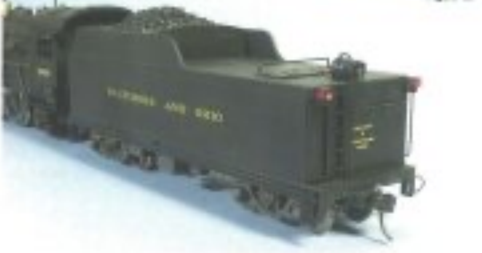


Figure 8

operate as a "spark" with a gap on each side of the wheel, the wiper now makes contact with the tender wheel twice per revolution or five times for every revolution of the drivers. The brown case wire from the decoder was soldered to this wiper. To make up for the loss of electrical pickup on that side of the engine, I installed wipers similar [illegible] Model wiper soldered to a small strip of circuit board (Figure 8). Power from there was routed back to the tender.

Figure 12



Painting and Weathering

I painted the engine and tender Floquil Engine Black and the drivers, valve gear, and tender trucks Floquil Grimy Black. The smoke box was painted silver and heavily weathered. I painted the interior of the cab [illegible]. The decals are from various sources. I numbered the engine No. [illegible] [illegible] in the middle of the range assigned to P1-ds. The engine was lightly weathered [illegible] [illegible] If I had it to do again, I would strip all the paint off the boiler before adding details. The production paint on my model was a little thick and hides some of the rivet detail.

All in all, I'm very happy with the way this engine came out. While it took some considerable effort, the results look great. [illegible] along the [illegible] waiting to watch the Big Pacific [illegible] scheduled.

[illegible] a B&O P-1d Pacific in HO-Scale

By Phil [illegible] MMR
Photos by the author

I am not sure which I like best: prototypical operations or building and/or scratchbuilding engines for my Baltimore & Ohio, Buffalo Creek & Gauley Railroad. The BC&G interchanged with the B&O at Dundon, and B&O passenger service was pulled by a class P-1d Pacific in the 1950s ... the era I model. I have four other B&O Pacifics to provide passenger service for other areas. I needed passenger service through Dundon so I needed a P-1d. Yes, the P-1d had been built in brass and occasionally you will find one on eBay, but at prices that are more than my engine budget. Besides, building is fun.

I had been thinking about a P-1d for a while when [illegible] to [illegible]. Then [illegible] as I walked through a train show in January. And what do I find, but a Mehano HO-scale USRA Pacific at a reasonable price, which I thought would make a good model to begin the P-1d project.

Researching the Prototype

Using the Internet, I went to one of my favorite railroad sites [illegible] and found and downloaded photos of B&O P-1 class engines. From [illegible] and [illegible] book "Baltimore & Ohio, Steam Locomotives, The Last 50 Years, 1908–1958" I found a drawing, photos and data. I also found photos and data from Lawrence W. Sagle's book "B&O Power." Another great source of information was Model Railroader's "Steam Locomotive Cyclopedia Volume One" by Linn H. Westcott and the "1941 Locomotive Cyclopedia" published by [illegible]. Comparing the Mehano Pacific to the prototype photos and data confirmed that I found a good starting point for my P-1d.

Construction: Boiler

Since my engines have DCC and sound, I decided to replace the old motor with a new can motor and flywheel, which I ordered from [illegible]. Next, I made a list of parts which I needed from [illegible], which I then ordered from Walthers through my local hobby shop.

Photo 10

The changes needed, besides replacing the motor, [illegible] all the molded-on detail parts, [illegible] new [illegible] air tanks, [illegible] was scraped and [illegible] project, was substituted. The [illegible]

Photo 1

Photo 2

Photo 3

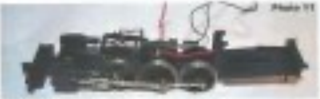
Photo 4

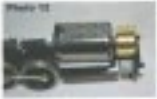
light moved from the center of smokebox to the high position, cylinder valves added, all [illegible] handrails, [illegible] classification lights, and [illegible]. The tender

Photo [illegible]

Photo [illegible]

[illegible]

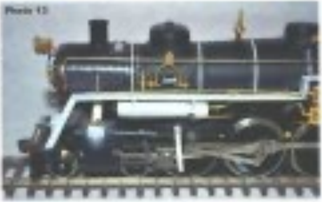




was drilled with appropriate size holes for the brass cast safety pops, whistle, pop valves, generator and steam stacks. A whistle lanyard was made from .008-inch copper wire. All were cemented in place with CA adhesive. The steam/air piping was formed and completed the injector pipes with CA adhesive and a coupler was made from brass details .03-inch rubber tubing. The 0.005-inch copper wire [illegible] [illegible].

A single row of Archer decal rivets were applied to the sides of the smokebox around the front and back of it and [illegible] on each side just before the handrails (photo 15).

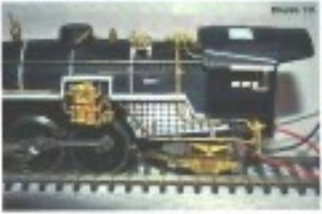
The boiler handrails were formed from 0.020-inch brass wire and the stanchions were slipped onto the handrail and installed in the predrilled holes with a drop of CA adhesive. The boiler was now completed except for wiring and was set it aside.



Construction: Frame

Modifications to the frame were now started. First (photo 11), the old motor was removed as was the motor brackets. The new can motor with its flywheel was checked for fit and location in relation to the gearbox. The U-joint coupling from the old motor was removed and pressed onto the new motor shaft. Foam double-sided tape was applied to the bottom of the motor and installed on to the frame (photo 12). The motor was hooked up to a DC transformer to check everything and its [illegible].

A flat spot was [illegible] from scrap [illegible] on the top of the cylinders for the cylinder valves (photo 13). Cylinder valve castings were not available, so I made my own valves (photo 13) from 0.032-inch brass rod and 0.040-inch OD brass tubing. One end of the tubing was rounded with a file using a Dremel motor tool as a lathe. The tubing was cut to length, appropriate size holes drilled into the top of the cylinders, the brass rod was inserted into the valve and then into the cylinder with a drop of CA adhesive; the pipes were formed from the 0.[illegible]-inch rods [illegible] into the holes with a drop of CA adhesive. The cylinder drain pipes were made from [illegible]-inch copper wire, the ends shaped with a file to match the boiler and the top of the cylinder, and then cemented with CA adhesive on the top of the cylinder. A [illegible] [illegible] was made from [illegible]-inch square rod and cemented together with plastic solvent cement; 0.[illegible]-inch brass rod piping, and 0.[illegible]-inch [illegible] were added and cemented to the frame under the cab on the fireman's side with CA adhesive.



To match the prototype, crosshead guide supports (photo 13) were made from [illegible]-inch styrene, cut and filed to shape, then [illegible]-inch square strips were cemented on it with plastic solvent cement to form an "L" section. The guides were attached to the valve gear brackets with [illegible] and pins that were [illegible] [illegible].

slightly and CA adhesive as well as a drop of CA adhesive on the crosshead guides. The frame was drilled and tapped for No. [illegible] x 3/16-inch FHMS and the plastic brakes were installed (photos 8 & 9).

Modifications to the pilot (photos 7, 8 & 9) included a resin coupler box made from scrap styrene, air/signal hoses and pipes made from 0.010-inch styrene rod, and a cut lever made from [illegible]-inch phosphor bronze wire. A Kadee No. 5 coupler replaced the dummy coupler in the pilot. Holes for the brake hoses and the steps [illegible] were drilled.

The pilot truck was retained but the trailing truck was replaced with a brass USRA trailing truck that I left over from another engine project. The engine was basically complete except for wiring, assembly, cab glazing, couplers, detail, cab deck plate and painting. [illegible] were formed from [illegible]-inch brass rod.

Construction: Tender

The Bachmann tender (photo 14) was disassembled and the coal load was removed with alcohol. The [illegible] and the coal load were discarded and the top of the coalbunker sides were scribed [illegible] and to resemble the two angled coalbunker sides. A new top for the coalbunker (Photo 15) was made from [illegible]-inch styrene sheet cut to size, and the edge that would [illegible] tender sides was beveled to set at an angle, matching the prototype instead of being straight. A [illegible] was formed around the coalbunker sides by [illegible]-inch brass rod, [illegible] to the edge profile, bonding in place with CA adhesive, and finally filing the ends to blend in with the [illegible]. A new coalbunker bottom was made from [illegible]-inch styrene. [illegible] decals were applied to the sides of the coalbunker. A backup light (photo 17) was made from a piece of [illegible]-inch [illegible] tubing, for later insertion of an LED, and inserted into a drilled hole in the back of the tender. Handrails were formed from [illegible]-inch brass wire and inserted into drilled holes with a drop of CA adhesive.

Air, signal, and steam piping, made from [illegible]-inch styrene rod, was added to the underside of the tender (photo 16). Complete brake details were added from another discarded tender; a piece of [illegible]-inch brass rod was [illegible] to connect the air tank to the main air line and the brake cylinder. [illegible] air/signal hoses, and steam hoses were

Photo 13

Photo 14

added to the back of the tender. A Kadee No. 5 coupler was installed. The Bachmann bolster required some modification to accept the Athearn trucks and provide the correct ride height. The tender and drawbar/pilot steps from the Bachmann tender were reused.

Photo 16

Electronics and Assembly

Using the NMRA recommended practice for color coded wiring, I hard wired the engine and tender together, installed a [illegible] DCC sound decoder, a [illegible] sound decoder, [illegible] speaker, and surface mounted LEDs, with resistors, for the headlight and backup light. [illegible] Clear Parts Cement & Window maker was used to form the LEDs into the lights and [illegible]. I [illegible] the Athearn electrical pickups for the drivers and the tender wheels. The engine was [illegible] with the Athearn lead weight, and so was the tender. A new [illegible] was made from styrene and installed.

Painting and Weathering

All the components to be painted were washed with warm water and a little detergent, left to dry, airbrushed with Floquil enamel "Grimy Primer" when dry, airbrushed with Floquil "Weathered Black" enamel; the smokebox and firebox were airbrushed with a Floquil graphite/black/[illegible] mixture. After drying, Floquil "Clear Gloss" enamel was airbrushed over the surfaces for decals. After drying, Microscale decals were applied and airbrushed with Floquil "Clear Flat" enamel. The engine headlight and the backlight were [illegible] to the [illegible] and attached to the headlight with [illegible] glass.

Photo 17

I decided to have my P-1d heavily weathered representing an engine in its [illegible] service. A little thinned Floquil's "Grimy Black" was lightly airbrushed over the top of the engine and tender representing an accumulation of soot. A little thinned Floquil's "Grime" was airbrushed on the drivers, wheels, trucks, and underside to represent the dust and grime picked up. Floquil's "Rust" was applied with [illegible] appropriate areas. A wash of [illegible] "Rust" was applied to all surfaces [illegible] India ink, in different strengths, were applied. Lastly, "Doc O'Brien's Weathering Powders" from Micro-Mark were applied. Some "Clear Gloss" [illegible] was brushed on to the tender deck to represent water spillage. The engineer, fireman and window glazing (clear styrene) were cemented in to the cab, as was the deck plate to the cab with ACC adhesive. The coal load was [illegible] with [illegible] white glue and [illegible] and diluted white glue applied to hold the coal in place. (finished photos 18, 19 & 20)

Oh, no! The assembled, painted and weathered engine was again placed on the test track only to discover that the gearbox that worked fine before, no longer worked — the gears were slipping. A quick call was made to NWSL and they sent me a new gearbox. The [illegible] gearbox was removed, the new NWSL gearbox installed, and I was back in business. I had my HO-scale B&O P-1d 4-6-2 running slowly, smoothly, and looking great. What's next, maybe a B&O [illegible] 4-6-2?

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The Paint Marker as a Modeling Tool

Article and photographs by [illegible]

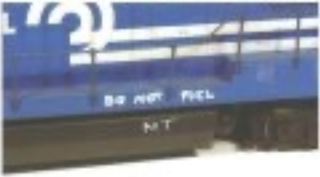
As model railroaders, we are constantly watching for products or techniques that will make our hobby projects easier or faster. Eagle-eyed, we carefully scour product announcements while tending to overlook items marketed outside our hobby, even if they may have great potential for use in model railroading pursuits. One of these products is a paint marker, in particular the Sharpie line of paint markers. Although marketed to others, these markers present an abundance of practical and artistic uses, both on and off the layout.

Sold under both the Sharpie "Paint" and "Poster-Paint" monikers, these "markers" [illegible] Sharpie's regular marker line. The Sharpie brand features a design similar to other paint markers [illegible] pressure has been applied to the tip. Sharpie's four tip sizes, ranging from extra-fine to bold, make them suitable for a variety of [illegible]. The brand produces several colors [illegible], such as white, yellow and metallic [illegible]. Further, the brand gives us the option of oil or water-based paint, allowing us to work [illegible]. Here we'll [illegible] ways a paint marker can make modeling easier [illegible].

One of the hardest things to replicate on our models are the spray paint or chalk marks hastily applied by railroad crews and shop personnel. One option is to use decals, applying one letter at a time. This is time consuming and generally leaves a uniform appearance, as if the markings were applied with a stencil. To truly achieve the look of hand-written markings, it is best to actually apply them this way. A paint marker allows us to write directly onto the flat surface of a model, recreating the variations of size and style common to handwritten or sprayed-on markings. This is clearly illustrated in the accompanying photographs of [illegible], a locomotive destined for the scrapyard. Both the white line through the road number (indicating the unit is retired) and the "DO NOT FUEL" and "MT" marks on the sill and fuel tank were made using a paint marker with an extra-fine tip. Varying the size and style of the lettering required only holding the marker at different angles while changing the thickness of the lettering required [illegible] the pressure on the marker. Best of all, it only took about 30 seconds rather than the frustrating hours normally spent applying decals one letter at a time.

While the paint marker can assist us in replicating the haphazardness of hand-applied markings it can also be used for precision work as well, applying contrasting colors along a set line. Anyone who has ever painted the window frames of a locomotive or caboose can attest to how frustrating and time-consuming this can be. [illegible] carefully dip the brush [illegible] amount of paint then attempt to get an even application along the beveled surface of the window frame. Although it may take a little practice to master "coloring between the lines," using a paint marker allows you to easily add [illegible] window frames by simply dragging the tip along the bevels, leaving an even application of color along the entire frame.

Yet a third use for these markers is in drawing freehand graffiti. Although many [illegible] graffiti on rolling stock [illegible] layouts, [illegible] modeling the modern era [illegible] limited number of commercial graffiti decals available and how quickly the



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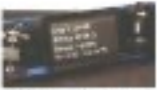
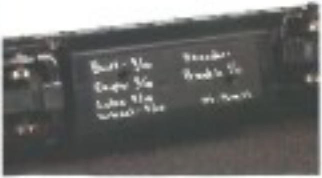
something can add up if too many [illegible] this is as simple as [illegible] ones, assuming the [illegible] make the casings quickly outweighing the cost of a set of paint markers. Adding graffiti to a [illegible] car or structure can become as simple as drawing it onto the car sides, allowing us to create the expensive



decals for situations where drawing might not be so easy.

Up to this point we've explored paint markers as artistic tools, yet they can have practical uses as well. Many of us have set up elaborate computerized or paper systems to track locomotive maintenance or store DCC-related information. Consider simplifying things by adding information such as decoder addresses and functions to the bottom of locomotive fuel tanks, allowing it to be quickly accessed without traveling to the layout. Other information could include maintenance dates such as wheel cleaning, lube, or coupler greasing. Simply scrape off the old information with a fingernail then add the updated records. While this can be a convenience for one home layout this can become essential for those operating within a club environment, allowing quick identification of decoder information or proving the ownership of identical models.

The uses for a paint marker can be endless, from artistic to practical, limited only by your own needs and creativity. So the next time you're at a craft, art, or office supply store, check out the marker aisle — you might find a product that will make modeling easier — even if it wasn't originally thought of as a model railroading product.



Standard Fuel Station for Motor Cars
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[illegible]

Uses of Gasoline Fuel Stations

[illegible]

Construction

[illegible]

Modeling the Fuel Station

[illegible]

Operations

[illegible]

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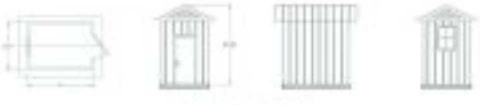

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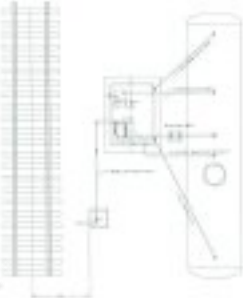
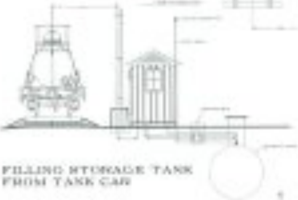
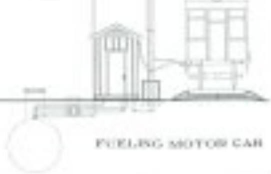




FILLING STORAGE TANK
FROM TANK CAR



FUELING MOTOR CAR

Building a No. 20 Turnout

Article, photographs and drawings by [illegible]

Introduction

I decided to build a No. 20 turnout to see if it could be done, what it would really look like, and to dispel any myths I heard about why a No. 20 cannot work in HO. I have never seen one in model scale. In HO it's about three feet long, so it would not be practical in most layouts. A No. 20 crossover would be about six feet long. Except for really large layouts, few people have that much room on a layout to devote so much floorspace for a turnout to [illegible]. A No. 20 does not fall into the realm of selective compression. All that aside, I thought it would still be a kick to build one and share in the fun, while [illegible] on my experience with other modelers. Who knows, as HO gets and continues to get larger, and high-speed model trains hopefully become easier to acquire, the time of the No. 20 may finally be at hand in model railroading.

The Template

The first thing needed is a turnout with a scale template. The NMRA does not offer one. In fact, I do not think anyone offers a scale template for a No. 20 in any gauge. So I researched plans from the American Railway Engineering and Maintenance Association (AREMA) Portfolio of Trackwork Plans, NYC engineering plans, Amtrak plans, a supplier's manual (Bureau Trackwork Products), for instance, a Massachusetts Bay Transportation Authority (MBTA) Commuter Rail Trackwork Playbook, and a set of Boston & Maine engineering plans for turnouts, all of which were available to me. All the plans were pretty complete with tie lengths, tie spacing and rail lengths. I selected the MBTA one for its special features. Any of the plans would make a great template. The B&M and NYC No. 20's call for the tie to tie half-thru [illegible] that represents a more vintage turnout. The MBTA No. 20 had ties as long as 17 feet while the classicals were up to 16 feet. The B&M ties only went up to 13 feet and had [illegible] compound to shuffled spacing in the closure arrangement.

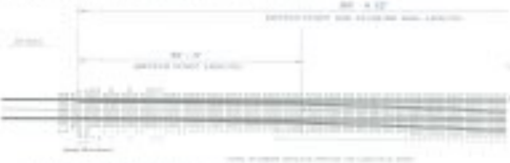
AutoDesk CADD was used to draw the template. Essentially, with the tie layout and tie spacing, the lead distance from the point of switch to the frog point, and the track centers were used from the prototype. Rail lengths in the template assumed [illegible] rail connections throughout with Code 83 rail. The rail dimensions used were the Micro Engineering Code 83 rail. The centerlines of the ties were drawn spaced exactly as they were shown on the prototype plans. The tie spacing varied throughout the length of the turnout. They were not all spaced at 19 ½ inches throughout. Some ties were closer and some farther apart to accommodate the various switch plates, braces, rods, pipe connections, rails, and castings that comprise the prototype. To have the rails lie properly on the ties, the ties needed to be proportionally spaced so the rails in the plan lay properly on the tie bed.

This will be seen with the other places also. The tie layout must coincide with the plans being used for the model or the rails may not look quite right at those ties.

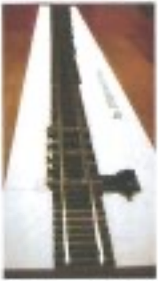
With CADD, it was possible to include the track centers and points of intersection of the centerlines. These are useful for aligning the turnout with connecting tracks. The template was then printed on a desk top printer on 8½ x 11 inch sheets and taped together, then [illegible] onto the pre-cut [illegible] with spray adhesive. See Figure 1 for the No. 20 template.

The template can be printed on a large professional printer if available. When printing, do not specify a scale for the PDF file so it will print in HO scale with no scale specified. A [illegible] scale is shown on the template to check that the correct scale was printed. The PDF is available free for personal use only by sending me a [illegible]. I'll send it to you along with a PDF of the turnout section based on [illegible] track centers. The template can be printed in other scales by adjusting the scaling before printing.

The Base Board



NUMBER 20 RIGHTHAND TURNOUT
FIGURE 1



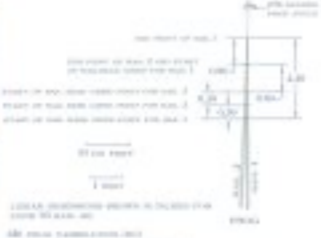


FIGURE 2

Since this turnout was not being built on a layout, but more for demonstration and clinic purposes, a piece of gator board was chosen as a base to build the turnout on. This is a type of foam core board that is much stronger than conventional foam core and does not warp. It can normally be found at professional drafting supply stores. A [illegible] piece, [illegible] inches wide was used for this project. A [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. But the gator board is very light and will hold spikes sufficiently after they are pushed through a [illegible] [illegible] [illegible].

The template was glued onto the gator board. 3M Scotch 77 spray adhesive was used to spray onto the back of the template. It [illegible] [illegible] [illegible] the gator board, [illegible] [illegible] [illegible] [illegible] the template [illegible] [illegible] [illegible] [illegible] onto the board.

Rail Fabrication

The next step was to fabricate the turnout rails and temporarily spike them to the template to check for fit.

The Frog

The frog was fabricated first. Using CADD and the dimensions of the Code 83 rail, a fabrication drawing was made for the frog rails using the method where one rail [illegible] into the other at a point behind the frog point. The fabrication plan for the frog is shown in the drawing in Figure 2. The frog angle for a No. 20 is 2° 51' 51" or simply 3° for modeling purposes.

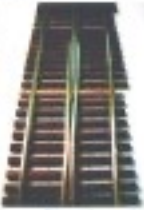


FIGURE 3

A tool was needed that would allow the rail to be filed down to a [illegible] angle. The switch point end of the Fast Tracks No. 10 Point Frog Form tool was ground to be the [illegible]. By joining these two switch points together at a frog, it becomes the desired [illegible] No. 10 switch points will make a nice No. 10 frog point. If this tool is not available, a good bench vise can be used to do the same job.

Two No. 10 switch point rails were filed using an extra-long length of Code 83 rail for each side of the frog. That, one rail was used for the frog point while the other rail was used to butt into it about [illegible] inches from the frog point as shown on the fabrication template. A [illegible] was used for the rough filing, and a finer file for finishing.

After the frog rails were filed, the rails were positioned onto the template and spot spiked into place. Next solder flux was applied and the frog rails were soldered together where they joined, using a [illegible] Weller soldering pencil and [illegible] inch diameter fine resin core solder. The frog was then flipped upside down and a slab of solder added beneath the frog rails where they joined to achieve added strength. This was then very carefully [illegible] the previously applied solder [illegible] but enough to make sufficient connection. A fine file was used to smooth out any solder that protruded above the surface of the rail head or base.

The finished frog was then positioned onto the template and temporarily re-spiked in place, aligning how the rails protruded on the template. See Figure [illegible] for a photo of the frog spiked to the template.

Stock Rails

The next step was to make the stock rails. Two three-foot pieces of rail were needed for these. Using the template, the rail base facing the switch points was marked where it had to be ground off. It was necessary to remove a few inches of rail base to allow the switch rails to come up to the stock rails. A Dremel [illegible] tool (as advertised in [illegible]) was used to grind off the base where specified. The start of the base grind was about [illegible] inch ahead of the point of the switch, to ensure that the switch point would not hit any portion of the stock rail base. This grinding could also be done with a file and a bench vise [illegible]. The Fast Tracks No. 10 frog point tool makes a nice clamp for the rail to allow for easy hand filing.

Then, the stock rails were positioned and spiked to the template. Every switch template tie was spiked for holding the stock rails in place. The stock rails cannot be spiked on the gauge side in the switch area for about [illegible] inches from the point of switch because the switch point inside that space is to slide. For alignment checking, it was okay to keep that area spike-free [illegible].

Switch Point-Closure-Wing Rails

Next came the switch point-closure-wing rails. These three rails are actually one continuous single rail. The switch points were not built with mechanical points to the closure rails for this turnout, but as one continuous rail. A length of rail was selected that was slightly longer than needed as observed on the template. Any surplus rail length would be cut off after a final measurement was made for the wing rail [illegible]. Fabrication was begun at the point of switch end of the rail.

To fabricate the switch points, a fabrication drawing in CAD was made. See Figure 4 for a drawing showing the dimensions of the filing or grinding. These points were made, strangely enough, with the help of the No. 10 Fast Tracks point-frog form tool. But a good bench vise would do the same. The rail was inserted in the point form tool from the point end, [illegible] all the way to the end of the tool. The [illegible], was what was needed for the grinding angle of the point where it meets the stock rail. The switch angle is about [illegible]. The rail was carefully filed until the web of the rail was as sharp as a knife point at the point of switch end. Then the rail was removed from the tool and [illegible] the gauge side of the switch rail was exposed to be filed. The head of the rail was filed so it went from a full head width at [illegible] inches from the point of switch, to a knife edge width at the point of switch. In other words, the railhead area that extended beyond the width of the rail web had to be tapered so it gradually approached zero width at the point of switch. This way the point of switch was knife sharp yet still supported by the rail web.

The switch rail always needs to be ground from both sides [illegible] and any [illegible]. Be careful not to grind the rail base on the gauge side of the switch rail. Only file the railhead. The base is used [illegible] to support the switch rails to be installed later. Lastly, the point form tool was used to clamp the switch point along the gauge side base and [illegible] the point so it was nice and smooth [illegible]. Next, the switch rails were held against the stock rails on the template to make sure they seated up snug and evenly. Any adjustment grinding was done at this time if needed.

The switch point-closure-wing rails were placed into position on the template so the point of switch was properly positioned, and then marked where they needed to be bent in front of the frog. Then, a small cut or notch was made at the [illegible] the wing rail junction. Then the rail was bent slightly at the base of the wing rails [illegible] to create a nice flange way. The cut in the base was to prevent the rails from rocking when bent. Then, the wing rails were [illegible] to coincide with the template. A small [illegible] file was used to then file the end of the wing rails to create a tapered entry into the flange way. About [illegible] inch of a [illegible] was filed. Lastly, the point-closure-wing rails were temporarily spiked into place on the template.

Finally, the guard rails were marked and fabricated like the wing rails. Some modelers prefer to bend the guard rail ends to create a flare. But on contemporary No. 20s and more prototype turnouts, the guard rails are flared, not bent. Guard rail bending was more often seen on old period turnouts. Flaring or bending would be up to the builder's preference. In any case, the guard rails, bent or flared, were then temporarily spiked onto the template.

At this point, all the turnout rails would be temporarily spiked to the turnout template without any ties. They are then checked for gauge and fit. A freight car or passenger truck would be used to test the wheels through the frog area to make sure everything was acceptable. The next step was to [illegible] and cut the ties, install them and spike the rails to the ties. The rails were [illegible] from the template and [illegible] for the tie work.

The End

For the ties, [illegible] inch [illegible] were used. This measurement is the prototype [illegible] for typical railroad standard and switch ties. The strips were stained first using Min Wax walnut stain. Then they were cut to length using a [illegible]

[illegible]

FIGURE 4

[illegible]

Attaching the Rails to the Ties

[illegible]

FIGURE 5

[illegible]

FIGURE 8

[illegible]

Switch Throw Rods and Pipe-Crank Mechanism

[illegible]

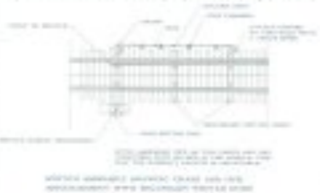


FIGURE 9

[illegible] Figure 8.

The next step was to make the crank and pipe assembly. [illegible] To make the cranks, study Figure 6. [illegible]

[illegible] switch points rail.

Lastly, the pipe [illegible] Figure 10 [illegible] See Figure 7 for a photo of the completed switch area.

The switch was now complete. [illegible]

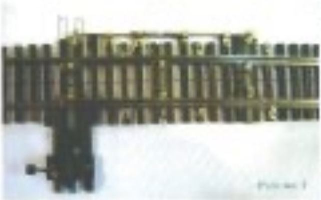


Figure 7

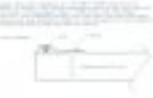
[illegible]

[illegible] shown in Figure 8.

[illegible]

[illegible] in Figure 11.

Electrical


[illegible]
Figure 10

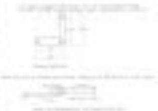


Figure 9

To make the switch electrically operational and DCC friendly, the following steps must be taken. [illegible]

Switch Throw Machines

The switch throw mechanism used for this project was a Caboose Hobbies HO [illegible] throw mechanism. [illegible]

Conclusions

[illegible]

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www.x2011west.org
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Over 10,000 photographs, slides, plans, drawings, [illegible] [illegible], [illegible] and more, with additional ones being added all the time. High-resolution files are available for download at a [illegible] to members.

- www.nmra.org, click "Online Archives" button

Kalmbach Memorial Library

One of the world's largest "railroads only" libraries. Contains prototype and modeling books and magazines and sets of [illegible] [illegible] [illegible].

- www.nmra.org/library
- Call: 423-892-2846
- Fax: 423-899-4869
- Email Brent Lambert: library@nmra.org

Achievement Program (AP)

The AP helps modelers [illegible] and [illegible] the hobby by providing [illegible] to learn and master the skills necessary. Those who've completed the AP receive Master Model Railroader (MMR) certificates.

- www.nmra.org/education/achievement
- Email Paul Richardson, MMR: achievement@hq.nmra.org
- Contact your Region or Division Achievement Program Manager (see www.nmra.org/regions/ for Region and Division website URLs)

Conventions – (National and Regional)

The annual National convention runs over a week and usually features about 150 clinics, over 50 layout tours, and dozens of prototype tours. The National Train Show can be the highlight of the convention.

Regional conventions [illegible] [illegible] run two to five days. Many feature prototype and layout tours, plus clinics and other activities.

- www.nmra.org/convention
- www.nmra.org/regions/ for Region and Division website URLs

Standards and Conformance

The NMRA constantly researches and sets Standards and Recommended Practices for all scales and gauges of railroad models, as well as addresses issues like DCC and modules. The NMRA continually checks new products for conformance to Standards and RPs.

- www.nmra.org/standards/standards.html
- Email Dr. [illegible]: tech-chair@hq.nmra.org
- NMRA Standards Gauges in various scales are available at the Company Store at www.nmra.org

NMRA Magazine

NMRA Magazine is the monthly publication of the NMRA, and features news about the organization and its Regions and Divisions, along with modeling articles, product conformance reviews, and other information. Because the subscription rate/postage depends on where you live, check www.nmra.org for your rate.

To subscribe:

- Email HQ: hq@hq.nmra.org
- Write HQ: 4121 Cromwell Rd., Chattanooga, TN 37421
- Call HQ: (423) 892-2846
- To contribute articles, photos, or information to the [illegible] of the magazine

Liability insurance for clubs

$1 million liability insurance is available to model railroad clubs in which every member is an NMRA member. $50 administrative fee and completed application required.

- www.nmra.org/regions/ [illegible] [illegible]
- Email: clubs@hq.nmra.org

Liability insurance for meets and shows

This insurance covers liability claims for all Region, Division, and NMRA SIG sponsored events up to a specific limit of liability [illegible] in the policy. (For clarity and assurance of coverage, we prefer that [illegible] events be sponsored by National, a Region, or a Division.) Please see the website for important details.

- www.nmra.org/national/insurance/[illegible]
- Email John Kilroy: [illegible]@hq.nmra.org

Pike Registry

Members can register their model railroad name with the Official Registry of Model Railroads, [illegible]. You receive an official certificate suitable for framing and a [illegible] [illegible] of the [illegible] Official Registry Certificate. Fee: $10

- www.nmra.org/member/pike/[illegible]

Collection Insurance

This service offers NMRA members group property insurance for collections, layouts, live steam, [illegible] slides and photographs, books, magazines, railroad memorabilia, and more. [illegible] NMRA Group Rates.

- For quotes or brochures, contact: J.S. Bush & Co.: 1-800-[illegible] or [illegible], Pittsburgh, PA [illegible]

Beginners' Guide

The Beginners' Guide pages on www.nmra.org offer answers to the hobby helping learning the basics of track, wiring, scenery, and more.

- www.nmra.org/beginner

Heritage and Living Legends cars

The NMRA periodically issues special edition cars that honor the famous model railroads, both current and historical. These limited quantity cars are offered through the Company Store.

- www.nmra.org/membership/cars/index.html

Member Aid

Contact Member Aid if you have questions about any aspect of model railroading. Many Divisions and Regions also have their own Member Aid service.

- www.nmra.org/membership/memberaid.html

Modeling With The Masters (MWTM)

This is an intensive, multi-day [illegible] Master Model Railroaders. Modelers get hands-on experience in beginning and intermediate modeling techniques. MWTM clinics are usually offered at the National conventions, but MWTM sessions have also been offered at Regional conventions across the country.

- Email Clark [illegible]

Clinic slides, tapes, and DVDs

The Kalmbach Library has a large collection of DVDs and VHS tapes available for rent. Cost is $[illegible] for [illegible] postage.

- www.nmra.org/library/videos.html
  (see links to PDFs for individual listings)
- Email: library@nmra.org (U.S. Members)
- Email: [illegible] (Canadian members)

Discounts and advance registration on new KML books

Kalmbach Memorial Library periodically offers special books and book reprints to the general public. NMRA members receive a substantial discount on the retail price and can reserve copies in advance.

- www.nmra.org, choose "online store," then "members only company store," then "books"

Local Divisions

There are over 150 local Divisions in the NMRA, located in large and small communities across the U.S., Canada, Australia, New Zealand and Britain. Most hold regular meetings and clinics featuring clinics, presentations, layout tours, and more.

- www.nmra.org/regions to find website listings for most Divisions
- Call HQ: 423-892-2846 for the name of the Division nearest you.

"Members Only" Company Store

The NMRA Company store offers many items that appeal to [illegible], available only to NMRA members.

- www.nmra.org, choose "online store," then "members only company store"

NMRA Standards Gauges, Data Sheets CD ROM, and turnout templates

NMRA members can purchase Standards Gauges at significant price reductions over retail prices. Data Sheets CD and Turnout Templates are available only from the Company Store. More data sheets are being updated and will appear in NMRA Magazine, as well as available for free download from the Members Only section of www.nmra.org.

- www.nmra.org — choose "online store," then "members only company store," then "accessories"

Annual NMRA calendar

Features spectacular model photographs, as well as dates for Regional conventions and more. Free to every U.S. member. Additional copies can be ordered for $[illegible] each from HQ. Outside the U.S., contact HQ.

- Email HQ: hq@hq.nmra.org
- Write HQ: 4121 Cromwell Rd., Chattanooga, TN 37421
- Call HQ: 423-892-2846
- For information on submitting photographs:
  [illegible]@hq.nmra.org

Howell Day Museum

The future NMRA Museum will feature the Howell Day Collection.

- Write:
  4121 Cromwell Rd.,
  Chattanooga, TN 37421
- Call:
  423-[illegible]
- Email:
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N Visible

by [illegible]

My nephew loves horses, hammers and magnets! Like me, he loves watching the classic TV and Western movies with stars like Roy Rogers, Hopalong Cassidy, and John Wayne. [illegible] *blacksmiths at the Living History Farms in Urbandale, Iowa.* [illegible] *my nephew decided it was time to go into business for himself.*

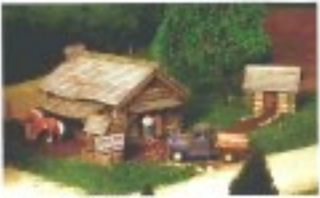
[illegible]

Uncle Marv welding on the Internet [illegible]

[illegible]

blacksmith shop [illegible]

The construction and history of Ben J. Miss Blacksmith is my tribute to E.L. Moore. [illegible]



[illegible]

[illegible] (RMR Nov. 1959). He was a scratch-building idol of mine.

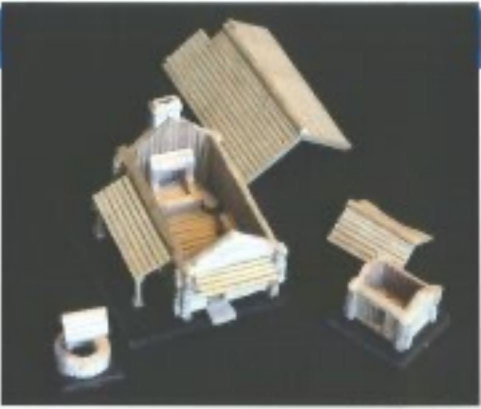
Sadly, I never personally met Mr. Moore but have collected over 95 percent of his articles, missing only articles from *Model Trains* and *Railroad Modeling* magazines [illegible] E.L. Moore article when I was at Iowa State University in the late 1960s. I found the *RMC* collection in the ISU library stacks. [illegible] Shop (RMC, Oct. 1968 page 44). [illegible]

[illegible] His buildings [illegible] structures with lots of detail. [illegible] With the years, he [illegible]

If you want to learn more about Mr. Moore and his scratchbuilding, I recommend two articles: One is "E.L. Moore's Legacy" by [illegible] 1986 page [illegible] "A Visit with E. L. Moore" by [illegible] 1977 page [illegible].

Mr. Moore's scratchbuilding [illegible]

The main structure [illegible] my Ben J. Miss Blacksmith is from "Under the spreading chestnut tree — the village smithy..." by E.L. Moore, [illegible] page [illegible]



[illegible]

[illegible] N scale figures.

Finally [illegible] Mr. Moore's [illegible] wood veneer [illegible] Wood veneer [illegible]

have "improved" it is by adding a [illegible] the glue is removed.

I also like to use [illegible] glue [illegible] strong, and waterproof.

As per the article, the logs were formed from [illegible] the interior wall openings as guides. I [illegible]

[illegible] on the same side.

The roof is made from wood veneer covered with shingles made from [illegible] "Parchment Aged" stationery paper. [illegible] I wanted.)

[illegible]

The painting and weathering of the [illegible] follows [illegible] principle of using whatever paint is handy and cheap. In this case, I used Apple Barrel and [illegible] acrylic paints on the [illegible]. The interior walls [illegible]. The [illegible] shingles were stained using Micro-Mark's "Age-It EASY" No. [illegible] Grey. I was pleased with the silver-grey [illegible] before I usually use an India ink/alcohol wash.

In a number of my N scale buildings, I like to install interior detail similar to Mr. Moore's [illegible] O, HO, and N [illegible]. In the Ben J. [illegible] Blacksmith shop, I [illegible] Mr. Moore's interior details [illegible] pictured in an English [illegible] under the subheading "The Forge."

The smithy's chimney and forge are carved from balsa and painted to represent stonework. The forge has a red LED [illegible] in the coal. The LED will be connected to a flickering circuit [illegible] a single coin cell. They have a [illegible] small batteries. The [illegible] a single coin cell and have the flicker circuit built into the LED, which means you cannot change the size or color of the LED.

The outhouse is a combination of the outhouse in "A Mighty Rickety Jail" by E.L. Moore, MODEL RAILROADER, November 1970, page 7, and my memory of the two-holer we had on the farm where I was growing up. I used Mr. Moore's dimensions

[illegible]

and my recollection of [illegible], the catalogs for toilet paper, and the view to contemplate. The outhouse was [illegible] than I expected [illegible]. [illegible]

[illegible]

[illegible] to N scale. I built up an appropriate catalog [illegible] by gluing pages behind the [illegible] is for a surprise [illegible]!

The well is from Mr. Moore's article "[illegible] Country Estate," [illegible] page [illegible]. This is the well that was [illegible] the "[illegible]," so the [illegible] building [illegible]. The old well with its [illegible]

well, each [illegible] boards to keep animals and people from drinking the [illegible]. I [illegible] the wood sign [illegible] with [illegible] grey. Then I [illegible] grey [illegible] my computer and used [illegible] to place the lettering on the sign. By [illegible] I was able to print [illegible] the lettering [illegible] the grey wood [illegible] and glue it to the paper side of the [illegible]. Next I had the [illegible]

[illegible] well was [illegible] "BEN J. [illegible] BLACKSMITH." ∎

A new V&O generation

PART II
ROLLING
STOCK

A project railroad built for an MMR and a Boy Scout Railroad Merit Badge

[illegible]

[illegible]

[illegible]

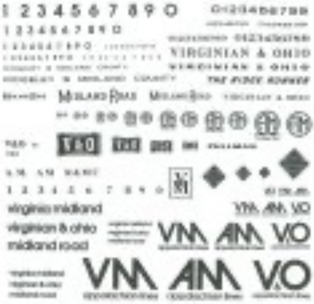
[illegible]

[illegible]

the V&O are easy to remedy [illegible] of Athearn cars were [illegible] [illegible] [illegible] that are very common [illegible] [illegible] available to pick these up for as little as a buck and when [illegible] with Kadee [illegible] wheelsets.

In order to paint the locomotives and the cabooses, I had to disassemble them. It is impossible to paint a locomotive or a caboose with the windows, [illegible], and [illegible] in place. The V&O locomotives have a black underframe, trucks, and fuel tank. Basically, I removed the shell from the chassis and then disassembled the [illegible]. Because the trucks and underframe [illegible] [illegible] there was [illegible] on the plastic parts, I cleaned it all with warm water and soap. I then primed the plastic [illegible] [illegible] painted them, and set them aside to dry. The trucks and the underframe were then painted. These parts were then set aside to dry as well. My attention turned to the body shells. I used decorated shells without stripping them. Dad noticed that the lettering was so thin that a little [illegible]-grit sand paper was all that was needed to remove any traces of the lettering. The real concern was the lettering showing through the paint. The shells were then divided into two groups for painting. One group received white ends and side sills, the other group was simply painted V&O blue. As previously mentioned, we used Scalecoat paint that we thinned for our airbrush. Many freight cars and cabooses were painted at this point, allowing us to prepare many shells for decaling. They, too, were separated into two groups; one group had the white ends and the others were blue "dips" as Dad put it.

The locomotives and cabooses that received the white end treatment (the V&O [illegible] and modern schemes) were set aside to dry overnight. The next day, I carefully masked off the white areas with Tamiya model masking tape. We found it at a local hobby shop on the advice of fellow modeler Larry [illegible] and tried it as an experiment. Dad has switched to this tape and loves the way it holds. [illegible] also likes how thin it is. [illegible] [illegible] and that none of the tape had lifted off the model prior to painting the V&O blue onto the shell. After painting the model with the blue, I removed the masking tape and carefully checked to see if any of the blue had seeped onto the white. If this happens, you just use a little thinner and a Q-tip to remove the fresh paint while leaving the dried paint untouched.



[illegible]

[illegible]

The process to paint the two-color shells takes two days. The single blue shells can be finished in one day. Dad taught me to sand the shells [illegible] paint [illegible]. Where there is any paint [illegible] the shells shouldn't [illegible]. After all of the paint colors are done, I started the decaling process.

Decaling Practices

One of the toughest parts of creating your own line is finding usable images of the prototype. In my case, the V&O did not have a real prototype, so Allen's photographs would become my reference. I used as many photographs of the V&O as I could find [illegible]. Some of what I did was [illegible] up following what I thought was good prototype practice. This was particularly true in the placement of the [illegible], ACI labels and [illegible] plates. I used images of [illegible]

[illegible]

[illegible]

[illegible]

VIRGINIAN & OHIO

to place them. One thing that I did blow was the placement of the number on the F units. They should have been added before the "Virginian & Ohio" lettering centered on the side of the carbody. I accidently [illegible] the lettering [illegible] passenger's [illegible] until it was too late. I also forgot to add the builder's plates to the locomotives in my hurry to get them done for this article. I will probably go back and add them to the locomotives because they look so cool and colorful.

When decaling, I first cut the needed decals from the decal sheet, taking time to trim the decal paper as close to the artwork as possible. For the LED plates and the MCI labels, you can actually cut right up to the edge of the decals since they are basically boxes. I used warm distilled water to soak the decal free of the paper backing. This is accomplished by creating a puddle of water on my self-healing cutting mat and placing the dry decal in that puddle. I do not drop the decal into the water bowl because it is hard to fish out when ready to apply. I then slide a little water on the model's area where I want to place the decal. After the decal has sat in the puddle of water for a while, [illegible] I slide the decal off of the paper backing onto the engine or car I am working on. I discard the paper and adjust the decal making sure it is aligned straight with the lines or edges of the car. Next, I remove excess water with a Q-Tip, taking care not to bump and move the decal. I then let the decal dry for a little while before lightly brushing Walthers Solvaset onto the decal. This process can be repeated as many times as needed to remove bubbles or to help the decal settle down into and over rivets or other surface irregularities. I usually do one side of a [illegible] but work on several shells at the same time. This allows me to make headway on the project but not have to worry about damaging a freshly decaled surface by turning it over and working on the other side until it is dry. The other nice thing about working on several shells is that I [illegible] and use it as a template for others. This process gives identical cars because you always have a guide or as I said before, a template, adjacent. It is harder to match decal placement when you are working from side to side of the same car.

The locomotives required decals on their noses and rears. I did these last, taking my time to carefully add my homemade

Below: One of Joel's favorite models is [illegible] F7B. He changed [illegible]

Below: This [illegible] GP7 [illegible]

Above: [illegible] Virginian & Ohio lettering on the GP7 long hood. [illegible]

[illegible]

[illegible]

[illegible]

Finishing Up

[illegible]

[illegible]

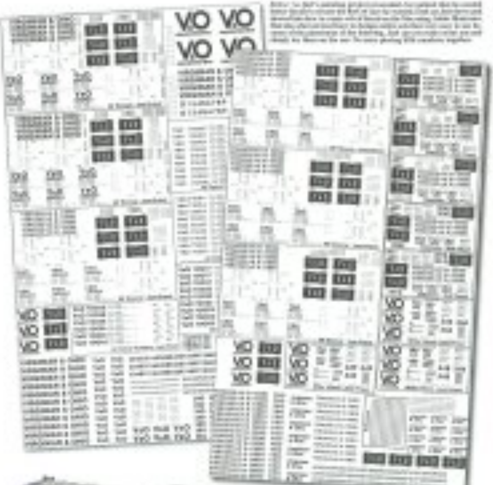
[illegible]

VIRGINIAN & OHIO
V&O
V&O
THE RIDGE RUNNER

[illegible]

V & O

[illegible]



[illegible]

Display Car

Product Announcements

by Todd Gilletty
todd@[illegible]

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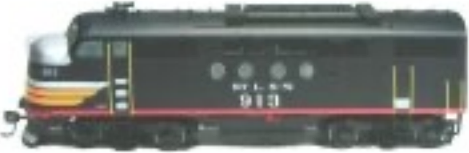

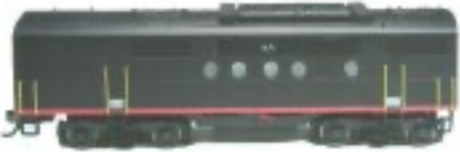

Heartland Railway

HO Laser Cut Kits

[illegible]

[illegible]
[illegible]

Atlas

N Scale Trainman

[illegible]

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[illegible]

[illegible]

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NMRA BULLETIN

Changed your address or other membership information?

[illegible]

DEPARTMENT & PROGRAM MANAGERS

[illegible]

REGION PRESIDENTS

[illegible]

[illegible]

NOTICE OF 2012 ELECTIONS

The following NMRA Officer and Board of Directors positions are open for election in 2012:

1. President,
2. Vice President, Administration
3. Vice President, Special Projects
4. Eastern District Director,
5. Pacific District Director, and
6. At-Large North America Director

Please check Article III, paragraph 10 of the NMRA Executive Handbook (EHB, located at http://www.nmra.org/national/organization/nmra_organization.html) for the extent of the districts affected. Qualifications for candidates are found in the EHB.

All nominations of candidates' names for consideration by the Nominations Committee shall be submitted to Ralph Voss, Chairman of the Nominations Committee, [illegible], no later than June 15, 2011.

Candidates may seek to run for these positions by petition independently and not subjected to the decision of the Nominations Committee. Requirements for submitting the petitions are contained in the EHB. All submissions by petition shall be received by the Secretary NMRA no later than July 15, 2011.

FROM NATIONAL

Did you know that the NMRA and the National Train Show each have Facebook pages? The NMRA page is full of interesting news and updates, along with links to other regions, divisions and individuals who have their own Facebook pages. The National Train Show page has been spotlighting different manufacturers and vendors that will be participating in this year's show in Sacramento. The best part about both pages is that you don't even need to be signed up on Facebook to view them. Both pages are publicly accessible and can be viewed by anyone on the internet. To see the NMRA page visit www.facebook.com/nmraorg. To check out the NTS page visit www.facebook.com/nationaltrainshow. If you are on Facebook, be sure to "Like" both pages to receive the latest posts as they happen.

ACHIEVEMENT PROGRAM

NMRA AP CERTIFICATE REPORT
APRIL 2011

GOLDEN SPIKE

Mid-Central Region
Maureen Hudson, [illegible], Pennsylvania

Midwest Region
Bill Neal, West Chicago, Illinois

Rocky Mountain Region
M. David Merrill, St. George, Utah

Southeastern Region
Steve Austin, Talking Rock, Georgia
Morgan Landis, Newnan, Georgia

Thousand Lakes Region
Bruce Burns, Winnipeg, MB

MASTER BUILDER — STRUCTURES

Mid Central Region
George Dahlberg, Williamstown, Kentucky

Midwest Region
Robert Bechtold, Milwaukee, Wisconsin

Thousand Lakes Region
Ron Emerson, Winnipeg, MB

MASTER BUILDER — [illegible]

Sunshine Region
Thomas Wilson, Davenport, Florida

MASTER BUILDER — SCENERY

Lone Star Region
Steven Rodkey, [illegible], Texas

Midwest Region
Bill Neal, West Chicago, Illinois
Robert Kreibell, Hudson, Wisconsin

Northeastern Region
Robert Bullerin, Stony Point, New York

MODEL RAILROAD ENGINEER — CIVIL

Mid Eastern Region
Robert Hinds, Palmyra, Virginia

MODEL RAILROAD ENGINEER — ELECTRICAL

Lone Star Region
E.J. Mikhal, Bertram, Texas

Mid Eastern Region
Madison Thompson, Gainesville, Virginia

CHIEF DISPATCHER

Northeastern Region
Bryan Robinson, Seabrook, New Hampshire

Rocky Mountain Region
Frederick Jaeger, Louisville, Colorado

ASSOCIATION OFFICIAL

Midwest Region
James Wise, MMR, Peoria, Illinois

Thousand Lakes Region
Gary Miller, Dubuque, Iowa

ASSOCIATION VOLUNTEER

Mid Continent Region
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Richie Sahs, Dodge, Nebraska

Mid-Central Region
Thomas Bruggemann, Cincinnati, Ohio

Mid Eastern Region
Nelson Clarke, Virginia Beach, Virginia

North Central Region
Bert Clark, Northville, Michigan
Jim Mansfield, West Bloomfield, Michigan

Pacific Northwest Region
Phillip Fonch, Spokane, Washington

Pacific Southwest Region
Donald Hart, Escondido, California

Southeastern Region
James Cary, Memphis, Tennessee

Thousand Lakes Region
Doug Clark, Spirit Lake, Iowa
Donald Smith, Ackley, Iowa
Dale Hanna, Milford, Iowa
Jerry Kelley, Lismore, Minnesota
Paul Shick, Winnipeg, MB

MODEL RAILROAD AUTHOR

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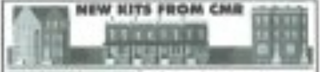

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You're the kid.

Welcome to the candy store.

- [illegible]
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- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

July 8-10, 2011, Sacramento Convention Center

[illegible], Sacramento, CA [illegible]

[illegible]

Model Showcase

[illegible]

An Afternoon of Meet the Modeler, Photographer and Crafter

[illegible]

People's Choice Awards

[illegible]

[illegible]

The Judged Model Contest

[illegible]

[illegible]

[illegible]

[illegible]

Contest Score Review Period & Awards Ceremony

[illegible]

Young Modelers

[illegible]

Award Sponsors

[illegible]

2011 Awards Sponsors:

Bachmann Industries

Most Innovative Model

Bar Mills

Funniest Model

Brotherhood of Locomotive Engineers

[illegible] Award

Design Preservation Models

Best Use of DPM Structures

Fantasonic Engineering

Model & Track Model

Most Amusing Use of Sound

Fun & Games Figures

Best Use of Figures

Hunterline

Best Weathered Scratchbuilt Model

[illegible]

Most Realistic Rolling Stock, Motive Power and Model by Youth

Kato USA

Top Diesel

Mt. Albert Scale Lumber Co.

Best Wooden Model

Bill Moore

Trophy award for Most Humorous Model

NMRA Magazine Award

Most Photogenic Model

Railroad Model Craftsman

Craftsman Award for Best Model

Testors Paint Company

Best Loco Finish, [illegible] Finish and Best Finish by Youth

United Transportation Union

Highest Point Score Over-the-Road Caboose

Wm. J. Lewis Texas

Highest point Score Scratchbuilt Steam Locomotive

Club Car

[illegible]

[illegible]

[illegible]

Club Car

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Central Valley N-scale [illegible] Truss Bridge Kit with walkways!

[illegible]

[illegible]

HO/N Laser kits and more...
NEW!

Blair Line, LLC

[illegible]

MUSEUMS

[illegible]

NMRA Future National Conventions

[illegible]

Library Car

Book and Video Announcements
by Brian Landers, Library Director

Publishers of books, magazines, DVDs and videotapes, audio recordings and computer software who would like a complimentary announcement should send a copy of their product, along with suggested retail price and a brief 100-word description to "Book Announcements," Kalmbach Memorial Library, 4121 Cromwell Road, Chattanooga, TN 37421-2119. All materials will be placed in the Library for use by NRHS members and other patrons.

Featured Book

BUILDING STRUCTURES FOR YOUR GARDEN RAILWAY

By Jack Verducci. Published by Kalmbach Publishing, 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612. To order, please call 1-800-533-6644, visit www.KalmbachStore.com, or check with your local bookstore. Soft cover, [illegible] pages, numerous color photos and illustrations. $21.95 plus shipping.

Creating an attractive, realistic looking garden railway involves much more than modeling the trains and [illegible] themselves. Fabricating and building structures that work in an outdoors setting is also fundamental. This book [illegible] to help garden railroaders accomplish their goal. It is the first comprehensive guide to creating structures that work in an outdoors setting. [illegible] Jack Verducci [illegible] to help and [illegible] advice about building structures that will stand up to the elements.

Books

NIAGARA, ST. CATHARINES & TORONTO: [illegible] CANADIAN NATIONAL ELECTRIC RAILWAY SUBSIDIARIES

By John M. Mills. Published by Railfare DC Books, Box 666, St. Laurent, Montreal, QC Canada H4L 4V9. To order, please visit www.railfare.net or write to the address above. Soft cover, [illegible] pages, [illegible] black and white and color photographs. $44.95 plus shipping.

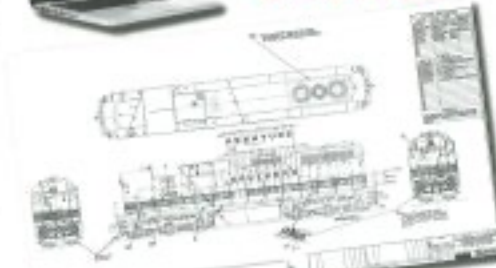
From its inception as a horsecar line in 1874, the NS&T is one of the foremost examples in Canada of an internally developed and closely integrated transportation system. It operated local street railways, interurban lines, a railroad and less than carload freight lake steamers, a large motor coach system, and even a single trolley line around the Niagara Gorge. The NS&T and predecessors include the first electric railway in Canada to have operated without interruption, and the last interurban passenger service. Each aspect of the company's operations was coordinated with others to form a transportation system which, while comparatively small in area, was [illegible] in operation, and [illegible] aspects of passenger service [illegible] were developed.

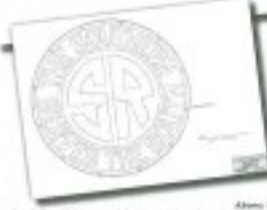
PRESERVED STEAM LOCOMOTIVES OF THE U.S.

Compiled and published by [illegible]. To order, remit to the author at [illegible] Drive, [illegible]. Saddle-stitched, 56 pages. $13 plus $3 shipping to U.S. addresses.

This publication contains a state-by-state listing of preserved steam locomotives. Under each state heading, the listing is further broken down within an alphabetical list of cities and specific locations within each city. Also included is the original owning railroad and locomotive, as well as the road number and the type of locomotive. Similar publications, such as Preserved Diesel Engines in the U.S. ([illegible]) and Preserved Railroad Equipment in Canada ([illegible]), also are available from the author.

History in a Click





The NMRA Online Archive

puts yesterday's railroading at your fingertips, just a mouse-click away. Our unparalleled collection lets you see railroading as it really was, to guide your layout, to help your modeling, to further your understanding. NMRA members can download high-resolution photos, drawings, diagrams and maps for just $3 each. Visit www.nmra.org and click on "NMRA Online Archives." Then let the history begin!

Top: Southern Railway SD35s occupied the 3000–3099 number series and were delivered in the mid-1960s. It is interesting to note that the SD35s were set up to operate short high hood forward, a feature shared with GP30s and GP35s. This, and hundreds more EMD painting and lettering diagrams, are available through the NMRA Online Archives.

Above: Made of 12 gauge steel with a baked enamel finish, this cast herald was destined for the nose of a locomotive in 1942. This detail clearly shows the bolt hole pattern and the layout of the "SR" lettering as well as the "THE SOUTHERN SERVES THE SOUTH" slogan. The NMRA Online Archives houses many of these detailed drawings of specific railroad lettering and heralds, giving you an up-close and unique view of your favorite railroad.

National Retailers

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